ABSTRACT

A method and apparatus for separating and removing distortion from interfering co-channel signals and suppressing adjacent-channel interfering signals of the Gaussian Minimum-Shift Keyed (GMSK) or other MSK type with filtering structures that exploit the cyclostationarity of the received GMSK or other MSK signals in order to accommodate a greater number (or the same number, but with greater quality) of transmitted signals received by one or more antennas than can be accommodated by existing filters. The parameters in these filtering structures are adapted by either of two adaptation apparatus that exploit both the known training sequence that is transmitted in most wireless communications systems, and the constant modulus property exhibited by each of the transmitted GMSK or other MSK signals.